PATENT

PENDING CLAIMS AS AMENDED

Please amend the claims as follows:

1. (Currently Amended) A method for reducing power consumption of a decoder in a

communication system, comprising:

estimating a quality metric of a channel associated with a segment of a received signal;

determining a quality metric threshold;

delimiting an interval in accordance with a modified based in part on the quality metric

threshold; and

decoding the segment when the estimated quality metric is outside of the interval.

2. (Original) The method of claim 1 wherein the estimating a quality metric comprises

estimating a signal-to-noise ratio.

3. (Currently Amended) The method of claim 1 wherein the estimating a quality metric of <u>a</u>

channel associated with a segment of a received signal comprises estimating a quality metric of

a channel associated with a slot of a received signal.

4. (Original) The method of claim 1 wherein the determining a quality metric threshold

comprises:

determined a data rate of the segment;

determining a number of segments received; and

determining a quality metric threshold in accordance with the data rate and the number of

segments.

5. (Original) The method of claim 1 wherein delimiting an interval comprises:

determining a real-valued parameter Δ_0 ; and

defining the interval in accordance with a formula ($-\infty$, TS + Δ_0), where TS is the quality

metric threshold.

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- 6. (Original) The method of claim 5 wherein the determining a real-valued parameter Δ_0 comprises determining the parameter Δ_0 in accordance with a demodulator performance.
- 7. (Original) The method of claim 5 wherein the parameter Δ_0 is less than or equal to zero.
- 8. (Original) The method of claim 1 wherein the decoding the segment comprises:
 delimiting a plurality of intervals in accordance with the quality metric threshold;
 associating each of the plurality of intervals with one of a plurality of parameters;
 determining an interval from the plurality of intervals into which the estimated quality
 metric belongs; and

decoding the received signal for a number of iterations equal to the one of a plurality of parameters associated with the determined interval.

9. (Original) The method of claim 8 wherein the delimiting a plurality of intervals comprises: determining a plurality of real-valued parameters

$$\Delta_0 \le \Delta_1 \le \ldots \le \Delta_m \le 0 < \Delta_{m+1} \le \Delta_{m+2} \le \ldots \Delta_{m+n}$$
; and

defining the plurality of intervals in accordance with the formulas:

$$[TS + \Delta_{k-1}, TS + \Delta_k)$$
, for all $k \in (1, n+m)$; and $[TS + \Delta_{n+m}, \infty)$,

where n, m are non-negative, integer-valued parameters.

- 10. (Original) The method of claim 9 wherein the parameters $\Delta_1, \ldots, \Delta_m, \Delta_{m+1}, \Delta_{m+2}, \ldots \Delta_{m+n}$ are determined in accordance with a demodulator performance.
- 11. (Original) The method of claim 8 wherein a plurality of parameters comprise non-negative, integer-valued parameters $N_1 \le ... \le N_m \ge N_{m+1} \ge N_{m+2} \ge ... N_{n+m+1}$
- 12. (Original) The method of claim 11 wherein the parameters $N_1, \ldots, N_m, N_{m+1}, N_{m+2}, \ldots$ N_{n+m+1} are determined in accordance with a demodulator performance.
- 13. (Previously Cancelled)

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14. (Currently Amended) An apparatus for reducing power consumption of a decoder in a communication system, comprising:

a processor; and

a processor-readable storage medium accessible by the processor and containing a set of instructions executable by the processor to:

estimate a quality metric of <u>a channel associated with</u> a segment of a received signal; determine a quality metric threshold;

delimit an interval in accordance with a modified based in part on the quality metric threshold; and

decode the segment when the estimated quality metric is outside of the interval.

- 15. (Original) The apparatus of claim 14 wherein the quality metric is a signal-to-noise ratio.
- 16. (Original) The apparatus of claim 14 wherein the segment of a received signal is a slot.
- 17. (Original) The apparatus of claim 14 wherein the quality metric threshold is determined in accordance with a data rate of the segment and a number of segments received.
- 18. (Original) The apparatus of claim 14 wherein the set of instructions is further executable by the processor to delimit the interval by:

determining a real-valued parameter Δ_0 ; and

defining the interval in accordance with a formula ($-\infty$, TS + Δ_0), where TS is the quality metric threshold.

- 19. (Original) The apparatus of claim 18 wherein the parameter Δ is determined in accordance with a demodulator performance.
- 20. (Original) The apparatus of claim 18 wherein the parameter Δ_0 is less than or equal to zero.
- 21. (Original) The apparatus of claim 14 wherein the set of instructions is further executable by the processor to decode the segment by:

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delimiting a plurality of intervals in accordance with the quality metric threshold; associating each of the plurality of intervals with one of a plurality of parameters; determining an interval from the plurality of intervals into which the estimated quality metric belongs; and

decoding the received signal for a number of iterations equal to the one of a plurality of parameters associated with the determined interval.

22. (Original) The apparatus of claim 21 wherein the set of instructions is further executable by the processor to delimit a plurality of intervals by:

determining a plurality of real-valued parameters

$$\Delta_0 \leq \Delta_1 \leq \ldots \leq \Delta_m \leq 0 < \Delta_{m+1} \leq \Delta_{m+2} \leq \ldots \Delta_{m+n}$$
; and

defining the plurality of intervals in accordance with the formulas:

[
$$TS + \Delta_{k-1}, TS + \Delta_k$$
), for all $k \in (1, n+m)$; and [$TS + \Delta_{n+m}, \infty$),

where n, m are non-negative, integer-valued parameters.

- 23. (Original) The apparatus of claim 22 wherein the parameters $\Delta_1, \ldots, \Delta_m, \Delta_{m+1}, \Delta_{m+2}, \ldots \Delta_{m+n}$ are determined in accordance with a demodulator performance.
- 24. (Original) The apparatus of claim 21 wherein a plurality of parameters comprise non negative, integer-valued parameters $N_1 \le ... \le N_m \ge N_{m+1} \ge N_{m+2} \ge ... N_{n+m+1}$.
- 25. (Original) The apparatus of claim 24 wherein the parameters $N_1, \ldots, N_m, N_{m+1}, N_{m+2}, \ldots$ N_{n+m+1} are determined in accordance with a demodulator performance.
- 26. (Previously Cancelled)
- 27. (Currently Amended) A processor-readable medium for reducing power consumption of a decoder in a communication system, comprising instructions executable by <u>a</u> processor to: estimate a quality metric of <u>a channel associated with</u> a segment of a received signal; determine a quality metric threshold;

Attorney Docket No.: 000419 Customer No.: 23696 delimit an interval in accordance with a modified based in part on the quality metric

threshold; and

decode the segment when the estimated quality metric is outside of the interval.

28. (Original) The processor-readable medium of claim 27 wherein the quality metric is a

signal-to-noise ratio.

29. (Original) The processor-readable medium of claim 27 wherein the segment of a received

signal is a slot.

30. (Original) The processor-readable medium of claim 27 wherein the quality metric

threshold is determined in accordance with a data rate of the segment and a number of segments

received.

31. (Original) The processor-readable medium of claim 27 wherein the set of instructions is

further executable by the processor to delimit the interval by:

determining a real-valued parameter Δ_0 ; and

defining the interval in accordance with a formula ($-\infty$, TS + Δ_0), where TS is the quality

metric threshold.

32. (Original) The processor-readable medium of claim 31 wherein the parameter Δ_0 is

determined in accordance with a demodulator performance.

33. (Original) The processor-readable medium of claim 31 wherein the parameter Δ_0 is less

than or equal to zero.

34. (Original) The processor-readable medium of claim 27 wherein the set of instructions is

further executable by the processor to decode the segment by:

delimiting a plurality of intervals in accordance with the quality metric threshold;

associating each of the plurality of intervals with one of a plurality of parameters;

determining an interval from the plurality of intervals into which the estimated quality

metric belongs; and

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decoding the received signal for a number of iterations equal to the one of a plurality of parameters associated with the determined interval.

35. (Original) The processor-readable medium of claim 27 wherein the set of instructions is further executable by the processor to delimit a plurality of intervals by:

determining a plurality of real-valued parameters

$$\Delta_0 \leq \Delta_1 \leq \ldots \leq \Delta_m \leq 0 < \Delta_{m+1} \leq \Delta_{m+2} \leq \ldots \Delta_{m+n}$$
; and

defining the plurality of intervals in accordance with the formulas:

$$[TS + \Delta_{k-1}, TS + \Delta_k)$$
, for all $k \in (1, n+m)$; and $[TS + \Delta_{n+m}, \infty)$,

where n, m are non-negative, integer-valued parameters.

- 36. (Original) The processor-readable medium of claim 35 wherein the parameters $\Delta_1, \ldots, \Delta_m, \Delta_{m+1}, \Delta_{m+2}, \ldots \Delta_{m+n}$ are determined in accordance with a demodulator performance.
- 37. (Original) The processor-readable medium of claim 27 wherein a plurality of parameters comprise non-negative, integer-valued parameters

$$N_1 \leq \ldots \leq N_m \geq N_{m+1} \geq N_{m+2} \geq \ldots N_{n+m+1}$$

- 38. (Original) The processor-readable medium of claim 37 wherein the parameters $N_1, \ldots, N_m, N_{m+1}, N_{m+2}, \ldots, N_{n+m+1}$ are determined in accordance with a demodulator performance.
- 39. (Previously Cancelled)
- 40. (Previously Presented) The method of claim 1 wherein the quality metric is slot based.
- 41. (Previously Presented) The apparatus of claim 14 wherein the quality metric is slot based.
- 42. (Previously Presented) The processor-readable medium of claim 27 wherein the quality metric is slot based.

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